

REMARKS

Applicants respectfully request reconsideration of this application, as amended.

Applicants note with appreciation the examination of Claim 19 on the merits.

Claims 1, 5–13 and 19 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1, 5–10, 12 and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mayer '436 (DE 19845436), corresponding U.S. Patent No. 6,928,925 (Mayer '925). Claims 11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mayer '925 in view of Mayer '217 (WO 00/20217). Claims 5–8 have been canceled without prejudice, and the subject matter recited within Claims 6, 7 and 8 has been incorporated into Claim 1. Thus, Claims 1, 9–13 and 19 are pending.

In response to the § 112 rejection, Claim 5 has been canceled and Claims 1 and 19 have been amended to more clearly recite the dimensions of the embossing structures, i.e., “a height or lateral structural size.” Support for this amendment may be found, for example, within Paragraph 0014 of the substitute specification. Claims 1, 9–13 and 19 have also been amended to more clearly describe the printing plate structures used for embossing as “embossing structures” rather than “embossed structures.” Support for this amendment may be found, for example, within Paragraph 0019 of the substitute specification.¹ Paragraphs 0018 and 0022 of the substitute specification have also been amended to reflect this clarification.

Claim 1 is directed to a steel intaglio printing plate and recites, *inter alia*, a height or lateral structural size of the embossing structures is of an order of magnitude in the range of 5 to 100 microns, or, the height or lateral structural size of the embossing structures is of an order of magnitude of less than 1 micron such that a diffractive relief structure can be embossed therewith, and parts of the embossing structures closest to the printing plate surface are located 20 microns to 100 microns below the printing plate surface. Claim 19 is directed to a method for producing a steel intaglio printing plate and recites similar features. Applicants respectfully submit that none of the cited references, taken either singly or in combination, teaches or suggests all of these features.

¹ “While the ink-receiving depressions intended for the printed image can be engraved into the printing plate surface in the usual way, the areas intended for the embossing microstructures can first be removed by the value by which the lowering is to be effected.” (emphasis added).

Mayer '925 discloses an intaglio printing process which prints adjacent ink areas using different ink layer thicknesses. Separating edge 5 separates adjacent engraved areas 3a and 3b, which include floors 7a and 7b, respectively. While floor 7a is flat, floor 7b has a floor roughness pattern that holds the printing ink on the floor of the intaglio engraving. The engraved areas 3a and 3b can also converge to a point at the bottom so that they have no floor surface. *See*, e.g., Col. 3:8–43; FIG. 1. Applicants respectfully submit that Mayer's engraved areas 3a and 3b are merely intaglio engravings or intaglio structures, and, as such, are not "embossing microstructures." Furthermore, Mayer fails to teach or suggest that his roughly-patterned floor 7b produces an embossed image in the printed intaglio document. Instead, Mayer teaches that his roughness pattern is merely intended to better hold the ink on the floor of the intaglio engraving. *See*, e.g., Col. 3:35–37. Accordingly, Mayer fails to disclose that parts of the embossing structures closest to the printing plate surface are located 20 microns to 100 microns below the printing plate surface, as recited by Claims 1 and 19.

It follows, therefore, that Mayer also fails to teach or suggest that a height or lateral structural size of the embossing structures is of an order of magnitude in the range of 5 to 100 microns, as recited by Claims 1 and 19. Even assuming, *arguendo*, that Mayer's floor 7b is an "embossing structure," it is apparent from Mayer that the height or lateral structural size of the roughness pattern of floor 7b is less than 5 microns. *See*, FIG. 1. Similarly, Mayer also fails to teach or suggest that the height or lateral structural size of the embossing structures is of an order of magnitude of less than 1 micron such that a diffractive relief structure can be embossed therewith, as recited by Claims 1 and 19. Again, even assuming, *arguendo*, that the roughness pattern of Mayer's floor 7b is an "embossing structure," Mayer teaches that his roughness pattern is merely intended to better hold the ink on the floor of the intaglio engraving, and fails to teach or suggest that a diffractive relief pattern can be formed therewith. Moreover, Applicants submit that none of the remaining references, taken either singly or in combination, teaches or suggests all of the features recited by Claims 1 and 19.

Accordingly, Claims 1 and 19 are allowable over the cited references. Claims 9–13, depending from Claim 1, are also allowable, at least for the reasons discussed above.

In view of the amendments and remarks presented herein, Applicants respectfully submit that this application is in condition for allowance and should now be passed to issue.

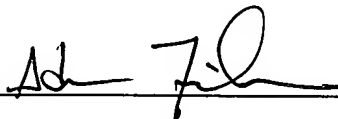
A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 02-2135.

Respectfully submitted,

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